United States Patent [19]

Blanchard

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[54] **TOUCH-SENSITIVE OVERLAY**

[75] Inventor: **Randall D. Blanchard**, Woodinville, Wash.

[73] Assignee: **John Fluke Mfg. Co., Inc.**, Everett, Wash.

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[58] **Field of Search** ..... 340/712, 711, 707, 706, 340/365 VL, 365 A, 365 P; 178/17 C, 18

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Primary Examiner—Gerald L. Brigance

Attorney, Agent, or Firm—James P. O'Shaughnessy; Stephen A. Becker; Mikio Ishimaru

[57] **ABSTRACT**

A touch-sensitive overlay (**20**) for cooperative, optically proximate engagement with a visual display (**22**) of luminous character information (**38**) latently occupying one or more of a plurality of character locations (**26**) defined with a position-multiplexed coordinate array one from another, is comprised of a mask (**44**) of a photoreactive transducer (**52**) having at least one photoelectric parameter which varies as a function of incident light from the display of character information striking the transducer, and a signal circuit element (**92**) responsive to a variation in the photoelectric parameter in communication with the mask for developing a characteristic logic pulse indicative of the position of one or more character locations within the array upon a touch thereof and the coincident presence of character information thereat (**48**). In a highly preferred implementation, the visual display is a CRT display where the raster scan (**24**) and associated driving circuitry (**96**) provides the position-multiplexing of character locations and selective illumination thereof, while the photoreactive transducer is an open photovoltaic cell for developing a localized electric potential at luminous character locations, completed upon a manual touch by the operator at a selected location to develop an output voltage pulse indicative of the position(s) touched, which pulse is then employed to interrogate registers (**98**) associated with the raster scan circuitry in order to provide spatial determination of the location(s) corresponding to the coincident presence of a touch and luminous character information thereat.

34 Claims, 12 Drawing Figures